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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,327	11/21/2003	Kenneth F. Fennewald	7377-000005/US	2615

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HARNESS, DICKEY, & PIERCE, P.L.C
7700 BONHOMME, STE 400
ST. LOUIS, MO 63105

EXAMINER

FASTOVSKY, LEONID M

ART UNIT PAPER NUMBER

3742

DATE MAILED: 09/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/719,327	Applicant(s) FENNEWALD ET AL.	
	Examiner Leonid M Fastovsky	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-14 and 19-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20031121</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species (Fig. 13 and 5-7) in the reply filed on 8/2/04 is acknowledged.
2. Claim 4 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species of Fig. 4, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 6, 11, 14 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juliano et al (5,973,296) in view of Godwin et al 96,305,923).
Juliano teaches substantially the claimed invention having a heater system (Fig. 6) comprising a thick film resistive element 86 defining a substrate 74, a dielectric layer 84, a temperature sensor 88 and protective layer 48. However, he does not teach a controller and microprocessor. Godwin teaches a system with film heaters 63, 65 and 67 comprising controller and microprocessor (col. 7, lines 17-30). It would have been obvious to one having ordinary skill in the art to modify Juliano's invention to include a controller and microprocessor in order to carry control and logic signals as taught by Godwin (col. 7, lines 29-35).

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As for claim 3, Godwin teaches thin film heaters 63, 65 and 67.

As for claim 19-23, it would be obvious to operate a layered heater in the device of Juliano as taught by Godwin because he teaches a structure that inherently capable of use as set forth in claims 19-23 in accordance with MPEP 2131.01.

5. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juliano in view of Godwin and further in view of Miyata et al (6,448,538).

Juliano in view of Godwin teaches substantially the claimed invention, but does not teach a sol-gel heater and thermal spray. Miyata teaches a sol-gel heater (col. 10, lines 10-20) and thermal spray (col. 20, lines 36-44). It would have been obvious to one having ordinary skill in the art to modify the invention of Juliano in view of Godwin to include a sol-gel heater in order to protect the exposed edge from the outside covering with a ceramic film as taught by Miyata (col. 10, lines 12-17), and also to make a thermally sprayed heater as conventional in the art as taught by Miyata (col. 20, lines 36-44).

6. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juliano in view of Godwin and further in view of Haas (6,770,848).

Juliano in view of Godwin teaches substantially the claimed invention, but does not teach a controller with DC and AC control. Haas teaches a film heater 50 comprising a controller 30 capable of operating with DC or AC control. It would have been obvious to one having ordinary skill in the art to modify the invention of Juliano in view of Godwin to use a controller with AC or DC control as conventional in the art as taught by Haas.

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7. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juliano in view of Godwin and further in view of Lumsden (6,489,742).

Juliano in view of Godwin teaches substantially the claimed invention, but does not teach a controller having an angle firing and a shunt resistor. Lumsden teaches a controller 8 comprises an angle firing (col. 7, lines 1-10) and shunt resistor (claim 1). It would have been obvious to one having ordinary skill in the art to modify the invention of Juliano in view of Godwin to include a controller comprising an angle firing and a shunt resistor to compute for controlling current as taught by Lumsden (col. 6, lines 55-67).

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Juliano in view of Godwin and further in view of Waggoner et al (6,752,491).

Juliano in view of Godwin teaches substantially the claimed invention, but does not teach a controller with firmware. Waggoner teaches a heater resistor having a controller 80 comprising firmware. It would have been obvious to one having ordinary skill in the art to modify the invention of Juliano in view of Godwin to include a controller comprising firmware in order to control various functions as taught by Waggoner (col. 2, lines 63-67).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 5665262 (layer heater), 5504307 (heat material), 6222166 (thick film heater), 6762396 (resistive coatings).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 703-306-5482. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 703-305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Leonid M Fastovsky
Examiner
Art Unit 3742

Imf